
REMARKS

Rejection under 35 U.S.C. 103

Claims 1-5, 7, 9-17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,987,011 to Toh in view of U.S. Pat. No. 6,104,712 to Robert et al. Claims 18, 20-21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Toh in view of Robert and further in view of U.S. Pat. No. 6,104,712 to Stiller et al. The Applicant respectfully disagrees.

Claim 1

In section 2 of the Action, the Examiner asserts that Toh teaches each mobile node comprises a routing table to support a plurality of routes through the network between source and destination mobile host and routing protocol to support the immediately-prior movement of a node. The Applicant respectfully disagrees.

Toh discloses a method of passing a message from a source node 20 to a target node 24 wherein the message is carried towards the target node by one or more mobile nodes 22 that receive and pass on the message along a route 30 selected by:

Initiating a broadcast query from the source node (column 8, lines 1-2 and 11-13);

In the target node 24, selecting the best route (column 10, lines 21-22); and

Sending a REPLY packet containing the selected route from the target node 24 to the source node 20 (column 11, lines 27-31).

When a node of the selected route changes, Toh provides for either re-initiating a broadcast query from the source node (Fig. 7a, Fig. 8a) or initiating a localized query from a node 56/64 of the selected road upstream of the node that has moved (Fig. 7b, Fig. 8b, Fig. 8c). In either case, the query ultimately reaches the target node 24, so that a new best route (or best partial route) can be selected by the target node 24, which sends a REPLY packet to the node that initiated the query (for example column 12. lines 21-24 with regard to Fig. 8b).

The Applicant notes that in Toh, the selection of the best route is always done in the target node 24. In other words, in Toh, determining that an intermediate node can be used to carry a message from a source to a target always involve:

- sending a query from or through the intermediate node;
- determining in the target node that the intermediate node is appropriate to carry the message (that it is in the best route); and
- sending back a REPLY message to or through the intermediate node.

Accordingly, the Applicant submits that Toh cannot be deemed to disclose or suggest that an intermediate node can be used to carry a message, from the source to the target, following an immediately-prior determination that the node is appropriate to carry the message to the target receiver.

The Applicant notes that Robert discloses a method of passing packets or messages from a network source to a network destination, wherein an *"end-to-end packet route from a network source to a network destination"* (column 19, lines 45-50) is first determined, then written in a packet route field 1305 of a message, prior to transmission of the message (column 20, lines 21-25). In other words, in Robert a node can only be used to carry a message after the end-to-end packet route has been determined and written in the message, and accordingly Robert cannot be deemed to disclose or suggest using an intermediate node to carry a message, from the source to the target, following an immediately-prior determination that the node is appropriate to carry the message to the target receiver.

In view of the above, the Applicant respectfully submits that no combination of Toh and Robbert would have led one of ordinary skill in the art to a method as recited in claim 1, and in particular wherein: *"at least one of the mobile entities is used to carry the message only following an immediately-prior determination"* that the mobile entity is appropriate to carry the message to the

target receiver. At least in view of the above, the Applicant submits that claim 1 is patentable over Toh in view of Robert.

Further, claim 1 recites that the mobile entity is appropriate to carry the message to the target receiver if *"its direction of travel is appropriate to physically carry the message in a direction that progresses the message on its way to the target receiver"*. The Applicant acknowledges with the Examiner that "Toh does not specifically suggest the mobile entities are used to carry the message following a determination that its direction of travel is appropriate to progress the message on its way to the target receiver".

The Examiner opines that Robert teaches predicting direction of travel for sending/routing protocol mobile with package (column 20, lines 21-67). However, the Applicant notes that Robert teaches selecting the nodes of a packet route as a function of their coordinates, not of their direction of travel (column 20, lines 20-28: *"the packet route field 1305 [...] is calculated by processor 250 according to a preferred or best route to x, y, z coordinates of respective MANs between the source and destination"*). The Applicant submits that Robert only teaches using trajectory vectors to calculate *"a list of Migratory Node Identifications (MNIDs) specifying the location the corresponding Migratory Access Node (MAN) will be at when the MANs come within range of each other"* (column 25, line 58-62), whereby whatever direction a node follows, only the position of the node when it comes within range of the other nodes is of importance in Robert. Accordingly, Robert does not disclose or suggest determining if the direction of travel of a node is appropriate to physically carry a message in a direction that progresses the message on its way to the target receiver.

In view of the above, the Applicant respectfully submits that no combination of Toh and Robert would have led one of ordinary skill in the art to a method as recited in claim 1, and in particular wherein: *"at least one of the mobile entities is used to carry the message only following an immediately-prior determination that its direction of travel is appropriate to physically carry the message in a direction that progresses the message on its way to the target receiver"*.

The Applicant submits that also in view of the above, claim 1 is patentable over Toh in view of Robert. Should the Examiner disagree, Applicant respectfully requests him to clearly and specifically point out where Toh or Robert disclose the above features, in accordance with 37 C.F.R. 1.104(c)(2).

Claims 2-5, 7 and 9-16

Claims 2-5, 7 and 9-16 depend directly or indirectly on claim 1. The Applicant respectfully submits that at least in view of their dependency, claims 2-5, 7 and 9-16 are patentable over Toh in view of Robert.

Claim 17

The Applicant submits that the above discussion with regards to claim 1 can also be used to show that since both Toh and Robert address determining a node-route prior to beginning a transmission, without determining if the direction of travel of the node is appropriate to physically carry the message toward the target, neither Toh nor Robert can be deemed to suggest a method as recited in claim 17, and in particular wherein a mobile entity is *"being used to carry the message only upon the entity being determined to be currently travelling in a direction appropriate to physically carry the message in a direction that progresses the message towards the target"* as recited in claim 17. The Applicant submits that claim 17 is patentable over Toh in view of Robert.

Claim 18

The Applicant respectfully submits that the Examiner has failed to show that Stiller discloses a send control subsystem for enabling the passing of a message to a mobile entity *"only upon determining that the current direction of travel of the mobile entity, as indicated by direction data received from the mobile entity, is*

appropriate to physically carry the message in a direction that progresses the message on its way to the target receiver" as recited in claim 18.

The Applicant further submit that the above discussion with regards to claim 1 can also be used to show that, since Toh and Robert address a system wherein the node route is chosen in the target node or in the source node, neither Toh nor Robert disclose an intermediate entity apparatus comprising a send control subsystem for enabling the passing of a message to a mobile entity *"only upon determining that the current direction of travel of the mobile entity, as indicated by direction data received from the mobile entity, is appropriate to physically carry the message in a direction that progresses the message on its way to the target receiver"* as recited in claim 18.

Accordingly, the Applicant submits that no combination of Toh, Robert and Stiller would have led one of ordinary skill to an apparatus as in claim 18, and submits that claim 18 is patentable over Toh in view of Robert and further in view of Stiller.

Claim 20

The Examiner asserts that Stiller teaches "a short range transceiver capable of determining the presence nearby of the mobile entity, a memory for holding the message". However, the Applicant respectfully submits that the Examiner has failed to show that Stiller disclose *"a receive control subsystem for enabling the storage for carriage of said message, only upon determining that the direction of travel of the mobile entity is appropriate to progress the message on its way to the target receiver as indicated by direction data received from the apparatus via the short-range subsystem"* as recited in claim 20.

The Applicant further submits that the above discussion with regards to claim 1 can also be used to show that, since Toh and Robert address a system wherein the node route is chosen in the target node or in the source node, neither Toh nor Robert disclose *"a mobile entity [...] comprising [...] a receive control subsystem for enabling the storage for carriage of said message, only upon determining that the direction of travel of the mobile entity is appropriate to progress the message on*

its way to the target receiver as indicated by direction data received from the apparatus via the short-range subsystem" as recited in claim 20.

Accordingly, the Applicant submits that no combination of Toh, Robert and Stiller would have led one of ordinary skill to a mobile entity as in claim 20, and submits that claim 20 is patentable over Toh in view of Robert and further in view of Stiller.

Claim 21

The Examiner asserts that Stiller teaches "a short range transceiver capable of determining the presence nearby of the mobile entity, a memory for holding the message". However, the Applicant respectfully submits that the Examiner has failed to show that Stiller disclose a mobile entity comprising "*a receive control subsystem for enabling the storage for carriage of said message, only upon determining that the current direction of travel of the mobile entity, is appropriate to physically carry the message in a direction that progresses the message on its way to the target receiver*" as recited in claim 21.

Further, the Applicant submits that the above discussion with regards to claim 1 can also be used to show that, since Toh and Robert address a system wherein the node route is chosen in the target node or in the source node, neither Toh nor Robert disclose a mobile entity comprising "*a receive control subsystem for enabling the storage for carriage of said message, only upon determining that the current direction of travel of the mobile entity, is appropriate to physically carry the message in a direction that progresses the message on its way to the target receiver*" as recited in claim 21.

Accordingly, the Applicant submits that no combination of Toh, Robert and Stiller would have led one of ordinary skill to a mobile entity as in claim 21, and submits that claim 21 is patentable over Toh in view of Robert and further in view of Stiller.

Accordingly, the Applicant submits that claim 21 is patentable over Toh in view of Robert and further in view of Stiller.

Allowable subject matter

Claims 6 and 8 depend indirectly from claim 1 and claim 19 depends directly from claim 18. The Applicant submits that claims 6, 8 and 19 are patentable over the cited references at least in view of their dependency.

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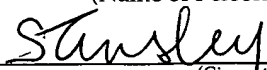
In view of the above, the Applicant submits that the application is now in condition for allowance and respectfully urges the Examiner to pass this case to issue.

The Commissioner is authorized to charge any additional fees that may be required or credit overpayment to deposit account no. 08-2025. In particular, if this response is not timely filed, the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 08-2025.

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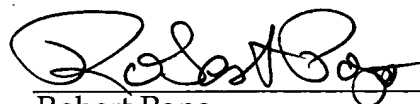
August 31, 2005
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